University of Hawaii Community Colleges
Proposal to Initiate, Modify or Delete a Course

1. Type of Action
   - A. Addition
   - B. Deletion
   - C. Modification: in credits, in title, in number or alpha, in prerequisites or co-requisites, Other

2. New Alpha, Number and Title
3. Credits

4. Old Alpha, Number and Title
5. Credits

6. New Catalog Description
   Study of the traditional Hawaiian approaches to natural resource development, utilization, exploitation, and management. The ahupua'a, as the traditional Hawaiian unit of land and sea subdivision, beginning in the upland forests, stretching across lower elevations, past the shoreline to the edge of the reef, will be evaluated as a microcosm of an integrated ecosystem and as a model for natural resource management and sustainability. (2 hours lecture; 3 hours lab/field)

7. Select box and type specific information in text box.
   - Prerequisites
   - Corequisites
   - Recommended Preparation
   - BIOL 101 or 124 or similar preparation

8. Student Contact Hours Per Week
   - Lecture 2
   - Lab 3

9. Proposed Date of First Offering
   - Semester: Spring
   - Year: 2008

10. This course is proposed for the Liberal Arts Program. Program.
   - X can fulfill Nat Sci: Biological
   - Other, specify DY (Science laboratory/field course); Bio-Resources and Technology ASC in Bio-Resource Development and Management; Hawaiian Studies Academic Subject Certificate Elective

11. This course makes no difference in the number of credits required for the program/core.

12. Equivalent or similar courses offered in the UH System:

<table>
<thead>
<tr>
<th>Campus</th>
<th>Alpha, Number, Title</th>
<th>Campus</th>
<th>Alpha, Number, Title</th>
</tr>
</thead>
<tbody>
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</tbody>
</table>

13. This course is (check one and click in appropriate textbox and provide details):
   - Already articulated with
   - Provide details of existing or desired articulation (date, college(s), purposes, pre-major, etc.) in this space:
   - Appropriate for Articulation with
   - Provide details of existing or desired articulation (date, colleges(s), purposes, pre-major or major, etc.) in this space:
   - X Not yet appropriate for Articulation.

14. Reason for Initiating, Modifying or Deleting Courses or Other Pertinent Comment:
   Natural Science Department action plan item was to request that this class qualify for the College's general education core requirements as a biological science. DB and DY

Requested by: [Signature] 5/10/07
Approved by: [Signature] Oct 9, 2007
[Signature] 10/16/07
[Signature] 10/17/07
Dean of Instruction [Signature] 10/4/07

CCCM #6100 (Amended for WCC use October 2002)
Levels of Review of Course Proposal at Windward Community College

Course Alpha, Number, and Title: IS 201 The Ahupua'a

<table>
<thead>
<tr>
<th>Signatures</th>
<th>Dates</th>
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<tbody>
<tr>
<td></td>
<td>5-11-07</td>
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<td>5/11/07</td>
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<tr>
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<td>5/11/07</td>
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</tbody>
</table>

1. Department Area (more than one departmental instructor's signature required)

2. Department

   Department Chairperson

   Was this course discussed in a department meeting? ☑ Yes ☐ No

   5/11/07

3. Division

   Margaret Coberly

   9/27/2007

4. Curriculum Committee Review

   Approved ☑

   Disapproved ☐

   Reason:

   - Dean Shimizu

   October 9, 2007

   Curriculum Committee Chairperson
Course IS 201 The Ahupua'a
Submitted by David Krupp
Date May 11, 2007

1. What change is proposed in the course? Provide specific information comparing both the “new” and “old” course.

The main change is to request that this class be considered as a biological science (DB) and a natural science laboratory (DY) for the College's general education core requirements.

2. What is the rationale for the change?

The class contains substantial biological science and laboratory/field content. The Natural Science Department action plan for 2006-07 included submitting a request that this class qualify as a biological science (DB). Since the class includes a laboratory/field component, the class should also qualify as a natural science lab/field course (DY).

3. Is the change substantive enough to require a change in course identification? If so, explain thoroughly.

no

4. Is the course articulated with any 4-year program? No

If yes, give details of the agreement(s) and explain any impact the proposed modifications may have on articulation.

5. Provide details of any additional staff, equipment, facilities, library/media material, faculty preparation and other financial considerations that would be required to implement this course modification. What has been done to provide for these additional costs? Who will teach the course? Is additional preparation needed?

no changes

6. Will this course modification result in any alterations in the number of hours required to attain a certificate or degree? No If yes, provide details and justification for these alterations.

7. If the course is renumbered to 100 or above, does it meet the criteria for transfer level courses? (Go to next page for transfer course criteria.)

CCCM #6100 (Amended for WCC use October 2002)
University of Hawaii Community Colleges
Proposal to Initiate, Modify or Delete a Course
Course Modification Form – Go to next page for Articulation Form

COURSE ARTICULATION FORM (GENERAL EDUCATION CORE)

ORIGINATING CAMPUS: Windward Community College DATE SUBMITTED: May 11, 2007

COURSE ALPHA & NUMBER: IS 201 SEMESTER CREDITS: 3

COURSE TITLE: The Ahupua'a

DATE OF OUTLINE: Spring Year 2008

(** Representative outline, no multiple syllabi, please.)
1. Articulation committee to review this course:

   Standing Committees
   Written Communication □
   Mathematical & Logical Thinking □
   World Civilizations □
   Languages □
   Arts & Humanities □
   Natural Science □
   Social Science □

2. The information in this item is required by the reviewing committee so that it has a starting point for reviewing the course. It is the responsibility of the submitting campus to do the necessary research to provide this information.

In the opinion of the originating campus, this course is equivalent to the following and/or meets the criteria for the indicated core categories. Every core category space, except your own campus, must be filled in (can include ‘none’). An equivalent course, if known, may be helpful to committee members but is not required.

<table>
<thead>
<tr>
<th>Receiving Campus</th>
<th>Equivalent Course (Alpha and Number)</th>
<th>Core Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>UH Hilo</td>
<td>NA</td>
<td>Nat Sci plus Lab</td>
</tr>
<tr>
<td>UH Manoa</td>
<td>NA</td>
<td>DB &amp; DY</td>
</tr>
<tr>
<td>UH West Oahu</td>
<td>NA</td>
<td>Nat Sci</td>
</tr>
<tr>
<td>Hawaii CC</td>
<td>NA</td>
<td>Nat Sci Grp 1 plus Lab</td>
</tr>
<tr>
<td>Honolulu CC</td>
<td>NA</td>
<td>DB &amp; DY</td>
</tr>
<tr>
<td>Kapiolani CC</td>
<td>NA</td>
<td>DB &amp; DY</td>
</tr>
<tr>
<td>Kauai CC</td>
<td>NA</td>
<td>Nat Sci Grp 1 plus Lab</td>
</tr>
<tr>
<td>Leeward CC</td>
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</tr>
<tr>
<td>Windward CC</td>
<td>NA</td>
<td>DB &amp; DY</td>
</tr>
</tbody>
</table>

3. If submitted electronically, I understand that this outline will be posted to a publicly accessible web site to enable open access for reviewing committees and campuses. The outline will be taken off the site upon completion of the review.

Typed Name or Signature

Note: If possible submit coversheet and course outline electronically as e-mail attachments (preferably in ‘pdf’ format). If submitting in printed form, 20 copies of coversheet and course outline are required for distribution for appropriate review.

SUBMIT TO: UCA Clearinghouse, Attn: John Muth
Chancellor’s Office for CC, 2327 Dole Street

Revised 1/19/01
WINDWARD COMMUNITY COLLEGE MISSION STATEMENT

Windward Community College is committed to excellence in the liberal arts and career development; we support and challenge individuals to develop skills, fulfill their potential, enrich their lives, and become contributing, culturally aware members of our community.

CATALOG DESCRIPTION

Study of the traditional Hawaiian approaches to natural resource development, utilization, exploitation, and management. The ahupua'a, as the traditional Hawaiian unit of land and sea subdivision, beginning in the upland forests, stretching across lower elevations, past the shoreline to the edge of the reef, will be evaluated as a microcosm of an integrated ecosystem and as a model for natural resource management and sustainability. (2 hours lecture; 3 hours lab/field)

Activities Required at Scheduled Times Other Than Class Times

None

STUDENT LEARNING OUTCOMES

The student learning outcomes for the course are:

1. Describe how the Hawai‘i’s unique geological formation affects its sustainable natural resources.
2. Describe how the ancient migration begins to affect the management of its natural resources and the socio-political fabric of the “new land.”
3. Describe the agri-spiritual relationship between plant and mahi’ai; and the fish and the lawai’a.
4. Discuss the ancient and present management value of water.
5. Describe and assist in the reconstruction of lo‘i kalo and loko i’a.
6. Describe and discuss the current resources management practices, which augment or negate ancient practices.
7. Research and replicate an artifact of his or her choice.
8. Use the scientific method of inquiry to investigate biological phenomena.
9. Apply the concepts learned to an experimental and hands-on observational setting.
10. Collect, reduce, and interpret biological data.
11. Prepare written objective reports describing and interpreting experimental and observational results.

COURSE CONTENT

Concepts or Topics

- geologic origin, geography, and biogeography of the Hawaiian island chain;
- formation and characteristics of Hawaiian soils;
- formation and evolution of Hawai‘i’s coral reefs;
- origins of native Hawaiian flora and fauna, both terrestrial and marine;
- reconstructing Hawaiian prehistory through archaeology;
- how native resources were used and managed by the Hawaiians;
- utilization, and management of resources transported to the islands by the Hawaiians;
- history and characteristics of the ahupua‘a;
- distribution, development, utilization, and management of resources from the different regions of the ahupua‘a: the mountains (uka), plains (kula), and ocean (kai);
- traditional Hawaiian life in the ahupua‘a, and the importance of the ahupua‘a system in sustaining not only natural resources, but also cultural, human, and spiritual resources;
- history of human occupation and impacts in the Hawaiian islands;
- history of land tenure and ownership in Hawai‘i and how changes in tenure and ownership have influenced Hawaiian natural resources;
- the nature and functioning of watersheds and their hydrologic networks as identifiable ecosystem and management units and how watersheds relate to the ahupua‘a;
- the importance of water as a resource in traditional Hawaiian terms and those of modern society; and
- the ahupua‘a concept applied to modern natural and developed resource management and conservation approaches.

COURSE TASKS

CREATE AN ARTIFACT. The student will research and construct an implement or artifact, using traditional materials if available, that replicates a traditional Hawaiian instrument or tool used in natural resource utilization and/or management (20 points). In addition, the student will submit a written report describing the artifact, how it was made and how it was used. (20 points). Finally the student will make an oral presentation to the class about the artifact (20 points).

GROUP PROJECT. The student will work together in a group with other students to research about a particular kind of natural resource used by Native Hawaiians. This research should yield information about the natural history of the resource, how it was cultivated, harvested or collected, and the strategies used by native Hawaiians to manage this resource. This group project will be documented in the form of a written report (20 points) and an oral presentation (20 points).

QUIZZES. The student will take a total five quizzes (10 points each; 50 points total). These quizzes will address the detailed content and major concepts presented in the lectures, lecture outlines, text readings, and study guide activities.

EXAMINATIONS. The student will take one midterm examination (100 points) and one non-cumulative final examination (100 points) to demonstrate understanding of information presented during lectures and assigned readings. These examinations, which will be
administered during a scheduled class session will be **CLOSED-BOOK EXAMINATIONS**: the student will NOT be able to refer to instructional resources while taking these examinations. **NO RETESTS** will be given. A student missing an examination because of an illness or legitimate emergency may take a make-up exam only during the FIRST class meeting to which the student returns. In such a circumstance, the student should make every reasonable attempt to contact the instructor before the exam is administered to the class (or as soon as possible). While make-up exams will cover the same content area as a missed exam, the exam format and specific questions may be different.

**LABORATORY AND FIELD TRIP REPORTS.** The student will be required to attend laboratories and field trips scheduled during the laboratory period. Field trips may include, but are not limited to, any of the following: watershed tour, visit to a working Hawaiian fishpond, working in a kalo patch, or coral reef snorkel/survey. The student will document participation in the laboratory and field trip activities in the form of a written reports (the specific format, which depends upon the activity, will be described by the instructor; 10 reports @ 10 points each; 100 points total).

**ASSESSMENT TASKS AND GRADING**

The assignment of points will be according to the following protocol:

- Create an Artifact .......................................................... 60 points
- Group Project ............................................................... 40 points
- Quizzes (5 @ 20 points each) ....................................... 100 points
- Lecture Examinations (two @ 100 points each) ............. 200 points
- Field Trip and Field Trip Reports ................................ 100 points

**TOTAL........................................................................500 points**

Letter grades will be assigned as follows:

- **A** ---- 90% or above in total points.
- **B** ---- 80-89.9% of total points.
- **C** ---- 65-79.9% of total points.
- **D** ---- 55-64.9% of total points.
- **F** ---- Below 55% of total points or informal or incomplete official withdrawal from course.
- **I**-----Incomplete; given at the **INSTRUCTOR'S OPTION** when student is unable to complete a small part of the course because of circumstances beyond his or her control. It is the **STUDENT'S** responsibility to make up incomplete work. Failure to satisfactorily make up incomplete work within the appropriate time period will result in a grade change for "I" to the contingency grade identified by the instructor (see catalog).
- **CR** -- 65% or above in total points; the student must indicate the intent to take the course as **CR/NC** in writing by the end of the 10th week of classes (see catalog).
- **NC** -- Below 65% of total points; this grade only available under the **CR/NC** option (see above and see catalog).
- **N**----**NOT GIVEN BY THIS INSTRUCTOR EXCEPT UNDER EXTREMELY RARE CIRCUMSTANCES** (e.g., documented serious illness or emergency that prevents the student from officially withdrawing from the course); never used as an alternative for an "F" grade.
- **W** --- Official withdrawal from the course after the third week and prior to the end of the 10th
week of classes (see catalog).

The instructor may announce extra credit options at various times during the course. However, in order for the student to be eligible for any extra credit activity, the student must demonstrate responsibility in completing all regular course assignments, taking the minimum number of quizzes (ten), and taking both examinations. In addition the student must demonstrate a sustained interest in the content of the course by regularly attending and participating in class. Some extra credit assignments may require same-day class attendance in order for the student to be eligible to receive credit for these assignments. THE INSTRUCTOR IS NOT OBLIGATED TO ACCEPT PROJECTS FOR EXTRA CREDIT.

Waiver of minimum level of achievement and course requirements may be given only in unique situations at the instructor's discretion.

Students involved in academic dishonesty will receive an "F" grade for the course.

LEARNING RESOURCES

Required texts include the following (note several of these are short articles):


Selected text readings will also assigned from the following materials:


Titcomb, M., 1978. Native Use of Marine Invertebrates in Old Hawaii. Pacific Science 32(4): 325-386. [This text is no longer in print; copies will be provided either as hard copies or in digital format.]


Other reading materials may be handed out in class, placed on reserve in the library, or accessed from web pages.

DISABILITIES ACCOMMODATION STATEMENT

If you have a physical, sensory, health, cognitive, or mental health disability that could limit your ability to fully participate in this class, you are encouraged to contact the Disability Specialist Counselor to discuss reasonable accommodations that will help you succeed in this class. Ann Lemke can be reached at 235-7448, lemke@hawaii.edu, or you may stop by Hale ‘Akoakoa 213 for more information.
<table>
<thead>
<tr>
<th>WEEK</th>
<th>LECTURE TOPIC</th>
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</table>
| 1    | Course Introduction  
          Origin of the Hawaiian Islands |
| 2    | Geography, Climatology and Water Resources of the Hawaiian Islands |
| 3    | Origin and Biogeography of Native Hawaiian Fauna and Flora |
| 4    | Formation and Evolution of Hawai'i's Coral Reefs |
| 5    | Formation, Characteristics and Erosion of Hawaiian Soils |
| 6    | A History of Human Occupation of the Hawaiian Islands |
| 7    | Overview of the Ahupua'a |
| 8    | Natural Resources of Hawaiian Terrestrial and Freshwater Ecosystems |
| 9    | Midterm Examination  
          The Importance of Water |
| 10   | Traditional Hawaiian Agriculture |
| 11   | Hawaiian Fishponds |
| 12   | Hawaiian Marine Resources |
| 13   | Stream dynamics and Watershed Characteristics |
| 14   | Principles of Ecology and Conservation Biology |
| 15   | Land Tenure and Ownership in Hawai'i |
| 16   | The Ahupua'a Concept Applied to Modern Natural Resource Management and Conservation Practices |
| FINALS | Final Examination |
The following additional resources may be utilized in course presentations:

**Videotapes**


O Hawai‘i: Of Hawai‘i from Settlement to Kingdom. Tom Coffman/Epicenter, 1998.


**PowerPoint Presentations**


**OTHER INFORMATION**

Important Dates:

- Last day to add or drop a class.................................
- Last day of erase period ...........................................
- Last day for official withdrawal.................................

Instructor's Office Hours (or by appointment):
<table>
<thead>
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<table>
<thead>
<tr>
<th>LAB</th>
<th>LABORATORY/FIELD TRIP TOPIC</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Introduction to Laboratory and Field Activities</td>
</tr>
<tr>
<td>2</td>
<td>Field Trip: Overview of Kane'ohe Streams and Watersheds</td>
</tr>
<tr>
<td>3</td>
<td>Field Trip: GPS Mapping of Kea'ahala Stream</td>
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<td>4</td>
<td>Field Trip: A Hawaiian Coral Reef</td>
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<td>5</td>
<td>Laboratory: Soil Identification, Origin, and Analyses</td>
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<td>6</td>
<td>Field Trip: Hawaiian Archaeology</td>
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<td>7</td>
<td>Laboratory: GIS Analysis of an Ahupua'a</td>
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<td>8</td>
<td>Field Trip: Native Forest and Riparian Plants Identification and Utilization</td>
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<tr>
<td>9</td>
<td>Field Trip: Native and Exotic Freshwater Species Identification and Utilization</td>
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<td>10</td>
<td>Field Trip: Kalo Cultivation</td>
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<td>11</td>
<td>Field Trip: The Hawaiian Fishpond: Limnology, Oceanography, Biology, &amp; Management</td>
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<td>12</td>
<td>Field Trip: Hawaiian Seaweed Identification and Utilization</td>
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<td>13</td>
<td>Field Trip: Waikiki Aquarium - Hawaiian Marine Fish Identification and Utilization</td>
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<tr>
<td>14</td>
<td>Field Trip: Water Quality in Kea'ahala Stream - Field Data Collection</td>
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<td>15</td>
<td>Laboratory: Water Quality in Kea'ahala Stream - Laboratory Analyses</td>
</tr>
<tr>
<td>16</td>
<td>Field Trip: Modern Aquaculture Techniques</td>
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